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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,938	05/23/2000	Andrew D. Dingsor	RSW9-2000-0036-US1	4490

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EXAMINER	
NGUYEN, THANH T	

ART UNIT	PAPER NUMBER
2144	11

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/575,938	Applicant(s) DINGSOR ET AL.	
	Examiner Tammy T Nguyen	Art Unit 2144	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *(3)* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *April 16, 2004* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 May 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

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Detailed Office Action

1. This action is in response to the amendment filed. **April 16, 2004**

2. Claims 1-33 are pending.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 11,12,21, 22, 32, 31 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ian Robert Govett., (hereinafter Govett) U.S. Patent No. 5,761,507 in view of Najork et al., (hereinafter Najork) U.S. Patent No. 6,351,755).

5. As to claim 1, Govett teaches the invention as claimed, including a computer program product for enhancing performance of a multithreaded application, said computer program product embodied on a computer-readable medium and comprising:

computer-readable program code means for executing a plurality of worker threads (col.13, lines 20-44, col.10, lines 25-49, col.12, lines 19-31, and col.10, line 62 to col.11, line 24);

computer-readable program code means for receiving onto an incoming queue a plurality of incoming client requests for connections (col.7, lines 9-50);

computer-readable program code means for servicing, by said plurality of worker threads, said client requests by retrieving selected ones of said client requests from said queues that comprise said wide queue (col.7, lines 29-67, and col.10, lines 24-37).

However, Govett fail to explicitly teach a wide queue wherein said wide queue comprising a plurality of queues. Najork teaches a wide queue wherein said wide queue comprising a plurality of queues (Fig.9, Frontier wide queue and plurality of queues). At time the invention was made, it would been obvious to one of ordinary skill in the art to combine the teaching of Govett with the teaching of Najork in order to store such information would be dynamically determined, and the manner in which that information is used would be dynamically determined, without having to customize the code for each application.

6. As to claim 2, Govett teaches the invention as claimed, wherein said computer-readable program code means for transferring further comprises:

computer-readable program code means for placing each of said received client requests on a selected one of said plurality of queues using a First-in, First-Out (FIFO) strategy, wherein said selected one of said plurality of queue is selected using a round-robin approach (col.7, line 51 to col.8, line 37);

7. As to claim 31, Govett teaches the invention as claim, wherein computer-readable program code means for returning each of said retrieved selected ones of said client requests for

which work has not yet completed to selected one of said plurality of queues in said wide queue, wherein said selected one of said plurality of queues is selected using a round-robin approach, upon completion of said computer-readable program code means for servicing (col. 12, lines 19-30, col.7, lines 29-50, and col.7, line 51 to col.8, line 37).

8. Claims 11, 12, and 21, 22, 32, 33 have similar limitations as claims 1, 2, and 31; Therefore, they are rejected under the same rationale.

9. Claims 3-10, 13-20, and 23-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ian Robert Govett., (hereinafter Govett) U.S. Patent No. 5,761,508 Najork et al., (hereinafter Najork) U.S. Patent No. 6,351,755 in view of Sharma et al., (hereinafter Sharma) U.S. Patent No. 6,182,109).

10. As to claim 3, Govett teaches the invention as claimed, including a computer program product for enhancing performance of a multithreaded application, said computer program product embodied on a computer-readable medium and comprising:

computer-readable program code means for executing a plurality of worker threads (col.13, lines 20-44, col.10, lines 25-49, col.12, lines 19-31, and col.10, line 62 to col.11, line 24);

computer-readable program code means for receiving a plurality of incoming client request onto a queue, wherein each of said client requests is for a connection to a host(col.7, lines 9-50);

computer readable program code means for retrieving, by an individual one of said worker threads, a selected one of said client requests from said queue (Fig.4, 460, and col.6, lines 52-67);

However Govett and Najork do not explicitly teach determining a number of connections to said host to which said connection is requested in said selected client request, wherein said number are those which are currently assigned to one or more of said worker threads, client request is less than upper limit. Sharma teaches determining a number of connections to said host to which said connection is requested in said selected client request, wherein said number are those which are currently assigned to one or more of said worker threads is less than upper limit (col.2, lines 46-49, col.11, lines 16-17 also lines 23, and col.12, lines 26-30, col.11, lines col.22, lines 49-60 and col.24, lines 3-15). At the time the invention was made would have been obvious to one of ordinary skill in the art to combine the teachings of Govett, Najork and Sharma in order to avoid an overload situation.

11. As to claim 4, Govett does not teach the invention as claimed, wherein said upper limit is a system-wide value. However, Sharma teaches the upper limit is a system wide value (col.22, lines 49-60 and col.24, lines 3-15). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to combine the teachings of Govett, Najork and Sharma to have a system-wide value because it would utilization and convenient communications system that offers additional services, such as message routing, resource management, and conversion facilities, for computers communicating at different speeds.

12. As to claim 5, Govett teaches the invention as claimed, wherein said upper limit is a value specific to said host to which said connection is requested (col.12, lines11-50).

13. As to claim 6, Govett teaches the invention as claim, wherein said value is dynamically computed, and further comprising: computer-readable program code means for executing a supervisor thread (col.6, lines 10-50, and col.9, line 50 to col.10, line 7);

computer-readable code means for monitoring, by said supervisor thread, whether connections to each of said hosts succeed or fail; and computer-readable program code means for decrementing said value when said connections to said host fail (col.10, lines 37-62, and col.12, lines 19-50).

14. As to claim 7, Govett teaches the invention as claimed, further comprising:

computer-readable code means for incrementing said value when said connections to said host succeed (col.10, lines 8-62).

15. As to claim 8, Govett teaches the invention as claimed, wherein said computer-readable program code means for monitoring further comprise:

computer-readable program code means for setting, by each of said worker threads, and thread time stamp when said worker thread performs active work (col.14, lines 30-40);

computer-readable program code means for comparing, by said supervisor thread, said thread time stamp for each of said worker threads to a system time, thereby computing an elapsed time for said worker thread (col.6, lines 9-52); and

computer-program code means for deactivating said worker thread if said elapsed time exceeds a maximum allowable time (col.6, lines 10-36).

16. As to claim 9, Govett teaches the invention as claimed, further comprising:

computer-readable program code means for providing information for each of said hosts, said information comprising an address for said host and a plurality of in-use flags (col.7, lines 9-50);

computer-readable program code means for setting a selected one of said in-use flags when a particular worker thread is processing work on said connection to a particular host,

wherein said selected one of said in-use flags is associated with said particular worker thread (col.7, lines 9-50); and

computer-readable program code means for resetting said selected one of said in –use flags when said particular worker thread stops processing work on said connection to said particular host (col.7, lines 9-50); and

wherein said computer-readable program code means for determining said number of currently-assigned connection further comprises computer-readable program code means for counting how many said in-use flags are set (col.3, lines 1-15).

17. As to claim10, Govett teaches the invention as claimed, wherein said queue is a wide queue comprised of a plurality of First-In, First-Out (FIFO) queues (col.7, line 29-50).

18. Claims 13-20, and 23-30 have similar limitations as claims 3-10; therefore, they are rejected under the same rationale.

19. Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Response to Arguments

20. Applicant's arguments filled on April 16, 2004 have been fully considered, however they are not persuasive because of the following reasons:

21. Applicants argue that the cited element is not found in Sharma reference, but it is found in Najork reference. Examiner admitted the typo error. Therefore, in the paragraph 7 of the office action, "Narjork" replaces "Sharma".

22. Applicants argue that Govett does not teach incoming client requests for connections. In response to Applicant's argument, the Patent Office maintain the rejection because Govett does

teach incoming client requests for connections as shown in col.5, lines 1-5. Clearly show client requests connection information from portmapper use that information to request a connection to the RPC.

23. Applicants argue that Sharma does not teach determining a number of connections. In response to Applicant's argument, the Patent Office maintain the rejection because Sharma does teach determining a number of connections as shown in col.2, lines 46-49, col.11, lines 16-17 also lines 23, and col.12, lines 26-30. Clearly show determining a number of connection requests.

24. Therefore, the Examiner asserts that cited prior arts teach or suggest the subject matter broadly recited in independent claims 1, 3, 11, 13, 21 and 23. Claims 2, 4-10, 12, 14-20, 22 and 24-33 are also rejected at least by the virtue of their dependency on independent claims and by other reasons set forth in the previous office action [see paper no. 9].

25. Accordingly, claims 1-33 are respectfully rejected.

Conclusion

26. The prior art made of record and not relied upon is considered pertinent to applicant's Disclosure. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

27. Any inquiries concerning this communication or earlier communications from the examiner should be directed to **Tammy T. Nguyen** who may be reached via telephone at **(703) 305-7982**. The examiner can normally be reached Monday through Friday between 8:00 a.m. and 5:30 p.m. eastern standard time.

If you need to send the Examiner, a facsimile transmission regarding this instant application, please send it to **(703) 872-9306**. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Bill Cuchlinski, may be reached at **(703) 308-3873**.

TTN
June 21, 2004

WILLIAM A. CUCHLINSKI, JR.
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